

159543

Wednesday, April 12, 2017 3:50:51 PM

N900040100

Setup Start *NS1*

Stop ***NS2***

4

Cust Item ID:

4

Customer:

Reference: SCHEDULED/S

Tooling: _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
☐ Environment	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
☐ Design	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
☐ Doc/Data	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
☐ Equip/Tooling	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
☐ Handling/Pre	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
☐ Material	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
☐ Internal Transport	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
☐ Tribal Knowledge	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
☐ LOA	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
☐ Substation	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
☐ Past Expiry Date	☐ Manufacturing Process	OTHER : _____					
☐ Misidentified	☐ Past Due						

159543

Wednesday, April 12, 2017 3:50:51 PM

N900040100

Setup Start *NS1*

Stop *NS2*

4

Cust Item ID:

Start Date: 4/16/2017 **Start Qty:** 4.00

Required Date: 4/28/2017 **Req'd Qty:** 4.00

4

Customer:

Reference: SCHEDULED/S

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

**Insp.
Stamp**

0.00

130

OC

Memo

0.08

Quality Control

0.00

140

HandFinish

Memo

0.51

Hand Finishing

0.00

150

OC

Memo

0.00

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
249 24 25-2									
								Completed By	
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	Past Due ☐							

Work Order ID 159543

Wednesday, April 12, 2017 3:50:51 PM

159543

Page 3

Item ID: D3179-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Litter Tie Down (Non-Locking)
 Start Date: 4/16/2017 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 4/28/2017 Req'd Qty: 4.00 ***4*** Customer:
 Reference: SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum <i>M 127176</i> Memo START TIME: <i>8:50</i> OVEN TEMPERATURE: <i>300</i> FINISH TIME: <i>9:20</i>	0.00 0.42				<i>4</i>	<i>0</i>	<i>17-05-18</i>	<i>DAS 34 9-89</i>
170 *170* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.04				<i>4</i>			<i>DAS 38 9-89</i> <i>MAY 17 2017</i>
180 *180* Small Fab Small Fab	Small Fab Memo Assemble as per Dwg D3179 <i>Drill Holes</i> <i>#D .246</i>	0.00 0.47				<i>4x</i>		<i>17/05/19</i>	<i>DAS 36 9-89</i>

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 159543

Wednesday, April 12, 2017 3:50:51 PM

159543

Page 4

Item ID: D3179-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Litter Tie Down (Non-Locking)
Start Date: 4/16/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 4/28/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference: SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.08				4			DAS 38 MAY 19 2017
200 *200* Packaging Packaging	Identify as per dwg & Stock Location: <u>54225</u> Memo	0.00 0.04				4			MAY 24 2017 DAS 6 3-89
210 *210* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.40							17/5/25 JF DAS 21 3-89 MAY 24 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

Picklist Print

Wednesday, April 12, 2017 3:50:50 PM

Page 1

Work Order ID: 159543

159543

Parent Item: D3179-041

D3179-041

Parent Item Name: Litter Tie Down (Non-Locking)

Start Date: 4/16/2017

Required Date: 4/28/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP A1 03.01.09 Added Acid etch end alodine RF
IPP Rev:B Added Powder Coat 07-07-04 JLM
AS PER REV D JLM 13-05-24 VERIFIED BY:DD
IPP Rev:C 08-12-10 add part list DD verified by:JLM

IPP REV:C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2372 *D2372* Quick Release		Manufactured	No			180	Each	24.0000	2	8		17/05/19	DAS 36 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				24					
					157894			1					
					158108			23					
D2444 *D2444* Pip Pin Assembly		Manufactured	No			180	Each	4.0000	1	4		17/05/19	DA: 36 9-89
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				GA				4					
					158068			2					
					159058			2					
D6201 *D6201* "T" Extrusion		Manufactured	No			180	f	9.5700	1.0125	4.263158			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				MAT028				9.5700001					
					124165			0.0000001					
					141301			0.675					
					155196			8.895					

4.063

17-05-04

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

Picklist Print

Wednesday, April 12, 2017 3:50:50 PM

Page 2

Work Order ID: 159543

159543

Parent Item: D3179-041

D3179-041

Parent Item Name: Litter Tie Down (Non-Locking)

Start Date: 4/16/2017

Required Date: 4/28/2017

Start Qty: 4.00

Required Qty: 4.00

MS21042L3 Purchased No

180 Each 1,315.000 1 4

MS21042L3

Nut

**

17/05/17 DAS 36 9-89

Location Loc Qty Loc Code

FP001 100

m135945 100

GA 198

m134360 102

M136665 96

OVER007 800

m134360 0

M136665 300

m137166 500

ST303 217

m137073 217

MS27039-1-13 Purchased No

180 Each 536.0000 1 4

MS27039-1-13

Screw

**

17/05/17 DAS 36 9-89

Location Loc Qty Loc Code

GA 18

124326 18

over006 300

124326 300

ST280 218

125654 218

Wednesday, April 12, 2017 3:50:50 PM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By _____		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

Page 3

Wednesday, April 12, 2017 3:50:50 PM

Work Order ID: 159543

159543

Parent Item: D3179-041

D3179-041

Parent Item Name: Litter Tie Down (Non-Locking)

Start Date: 4/16/2017

Required Date: 4/28/2017

Start Qty: 4.00

Required Qty: 4.00

NAS1149D0332J

Purchased

No

180

Each

1,374.000

3

12

NAS1149D0332.I

17/05/19

DAS
36
9-89

Washer

Location

Loc Qty

Loc Code

FP	8	
m136015	8	
GA	518	
m136643	518	12
ST264	848	
m136015	62	
m137075	786	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DART AEROSPACE LTD		Work Order: 159543
Description: Fwd Litter Tie Down Bracket		Part Number: D3179-1
Inspection Dwg: D3179 Rev: E		Page 1 of 1

INSPECTION SHEET

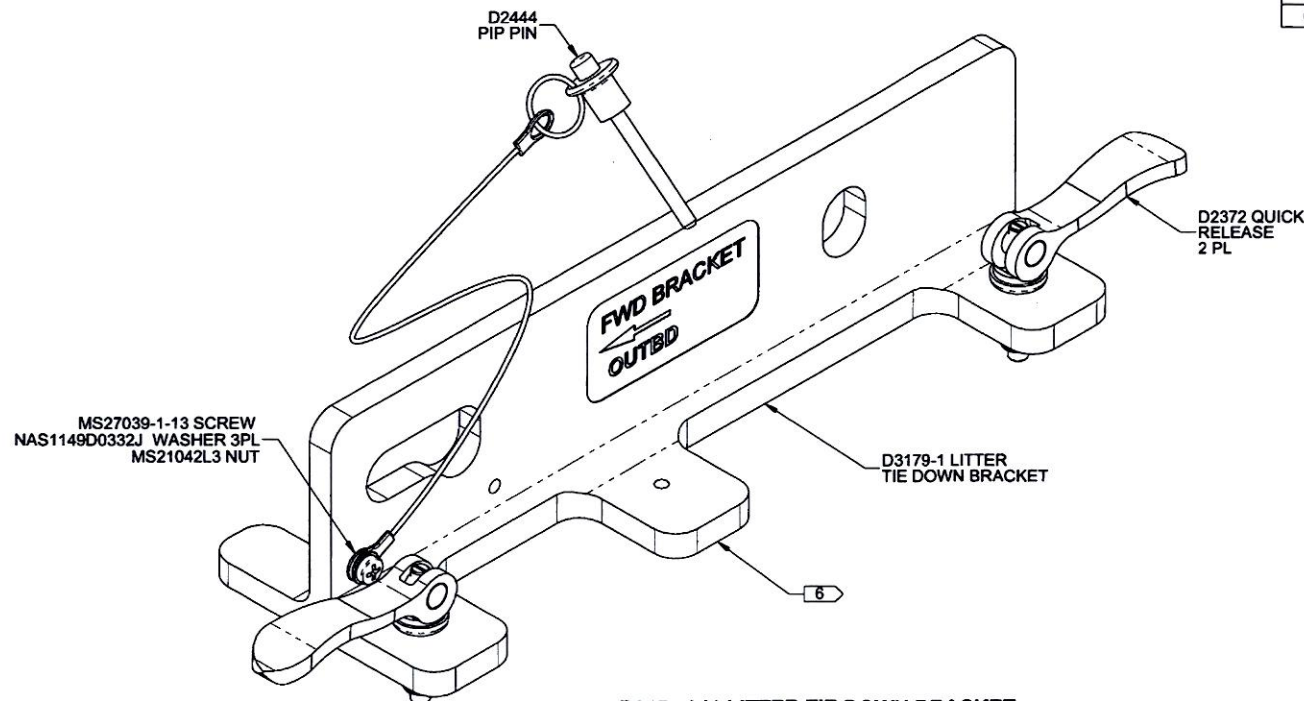
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.00	+/-0.030	1.008	✓		Vern L.P.D.	
R0.40	+/-0.030	0.40				
R0.38	+/-0.030	0.38				
1.70	+/-0.030	1.700				
Ø0.191	+0.005/-0.001	0.193			gauge pin	
- 10.500	+/-0.010	10.499			Height gauge	
- 4.250	+/-0.010	4.250				
Ø0.246	+0.005/-0.001	.246			gauge pin	
1.50	+/-0.030	1.498			Vern L.P.D.	
- 0.750	+/-0.010	.748			micrometer	
- 1.000	+/-0.010	.995				
4.00	+/-0.030	3.996			Vern L.P.D.	
1.00	+/-0.030	.998				
1.38	+/-0.030	1.385				
- 1.875	+/-0.010	1.879			Height gauge	
- 2.125	+/-0.010	2.1295				
2.88	+/-0.030	2.870			Vern	
3.31	+/-0.030	3.312				
R0.375	+/-0.010	.375			Rad gauge	
R0.50	+/-0.030	.520				
Ø0.191	+0.005/-0.001	.193			gauge pin	
R0.25	+/-0.030	.250			Rad gauge	
R0.375	+/-0.010	.375				
R0.38	+/-0.030	.375				
12.00	+/-0.030	12.000			CNC-OZ	Vern
- 9.000	+/-0.010	8.998			Height gauge	
7.50	+/-0.030	7.495				
4.50	+/-0.030	4.505				
2.88	+/-0.030	2.875				
- 2.250	+/-0.010	2.251				
- 1.000	+/-0.010	1.001				
0.50	+/-0.030	.4985				

Measured by: P17-05-04	Checked by: 44 9-89	QC Inspector:
Date:	Date: 17-05-07	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	09.04.05	New Issue P/O D3179-041	KJ/DD	
B	12.10.04	Dimension 0.750 was 1.750	KJ	
C	13.05.27	Dimensions revised per Dwg Rev D	KJ	
D	16.06.08	Dimensions revised per Dwg Rev E	KJ	
E	17.02.16	Dimensions rearranged	KJ	

ITEM	QTY	P/N	DESCRIPTION
	X	D3179-041	LITTER TIE DOWN BRACKET
1	2	D2372	QUICK RELEASE
2	1	D2444	PIP PIN
3	1	D3179-1	LITTER TIE DOWN BRACKET
4	1	MS21042L3	NUT, SELF-LOCKING
5	1	MS27039-1-13	SCREW, PAN-HEAD
6	3	NAS1149D0332J	WASHER (AN960JD10L)



D3179-041 LITTER TIE DOWN BRACKET

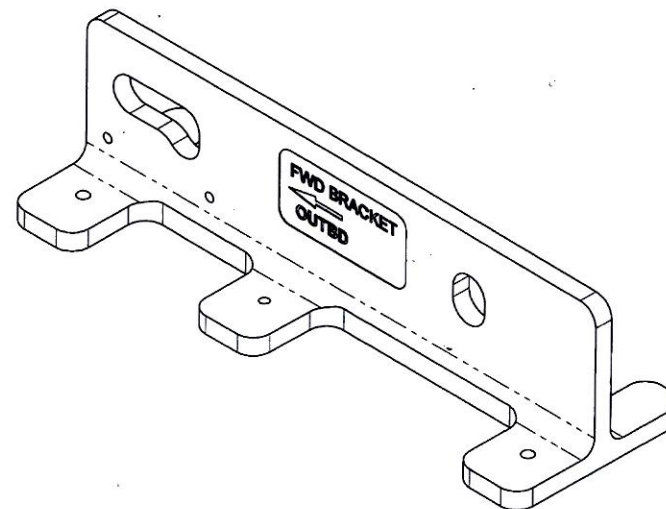
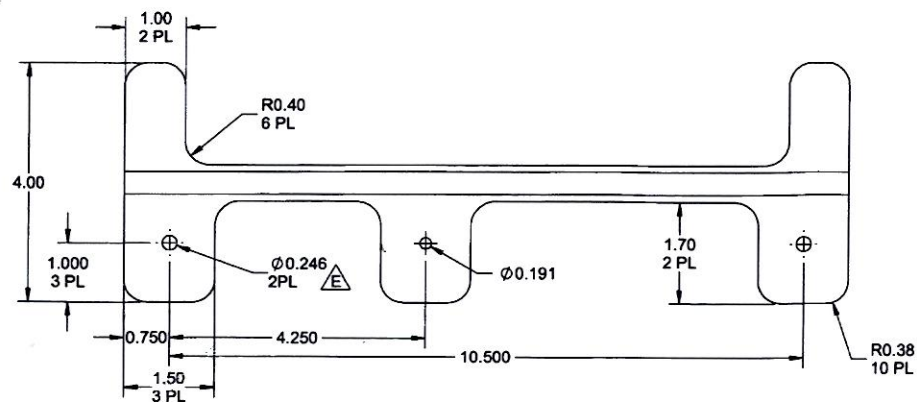
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159543 MWO
1704-73

- NOTES:**
- 1) MATERIAL: N/A
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3179-041" AND B/N "BXXXXXX" ON BOTTOM FACE PER QSI 044 6.1
 - 7) WEIGHT: 2.79 lbs

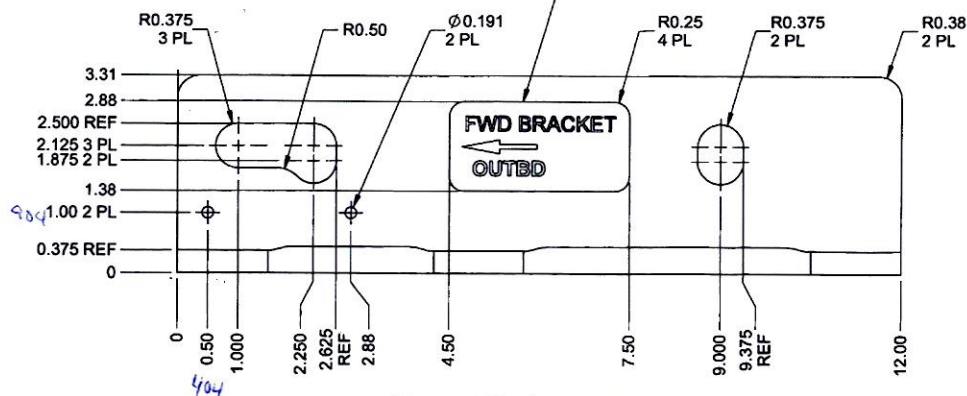
RELEASED
2016-04-18
EN 16-562

REV	DESCRIPTION	BY	DATE
E	Ø0.246 WAS Ø0.242 (ZN C7-2). REASON: PAR15-415	MB	15.11.12
D	POSITION AND SHAPE OF LITTER CAPTURE SLOTS CHANGED (ZN B4-2, B8-2, C7-2). ADD ENGRAVING NOTE (ZN C4-2). REF CIR13-15	DB	13.03.22
C	ADD D3179-041 & PARTS LIST (ZN B6-1, D2-1). D3179-1 WAS D3179 (ZN A5-2); REMOVE ENGRAVE P/N	RF	08.11.07
B	REFORMAT DRAWING, FINISH WAS ANODIZE	DC	07.06.06
A	NEW ISSUE	RF	02.12.09
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MB		
CHECKED	AJS	DRAWING NO.	REV. E
MFG. APPR.	JLM	D3179	SHEET 1 OF 2
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	LITTER TIE DOWN BRACKET	NTS
DATE	15.11.12	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED



CREATE ENGRAVING POCKET, 0.010 DEEP
ENGRAVE ARROWS AND TEXT, AS SHOWN
IN THIS AREA TO A MAX DEPTH OF 0.015 AND A MIN
TOOL RAD OF 0.020



D3179-1 TIE DOWN BRACKET

NOTES:

- 1) MATERIAL: MAKE FROM D6201-012 EXTRUSION (6061-T6/T6511 PER QQ-A-200/8)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.90 lbs

RELEASED
2016-04-18

APPROVED

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. E
MFG. APPR.	JLM	D3179	SHEET 2 OF 2
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	LITTER TIE DOWN BRACKET	NTS
DATE	15.11.12	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

965